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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/676,646

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Kouros Gharachorloo

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EXAMINER

LE, MIRANDA

ART UNIT

PAPER NUMBER

2167

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/676,646

Applicant(s)

GHARACHORLOO ET AL.

Examiner

Miranda Le

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. This communication is responsive to Amendment, filed 09/13/06.
2. Claims 1-28 are pending in this application. Claims 1, 2, 12, 13 are independent claims. In the Amendment, claims 1, 2, 4-6, 9-11, 13, 17, 18, 21, 23 have been amended, claims 25-28 have been added. This action is made Final.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-3, 5-8, 10, 12-15, 17-20, 22, 24-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 1 fails to provide a practical application that produces a useful, concrete and tangible result. Claim 1 only appears to produce a tangible result under the conditions when a positive result is returned and when the threshold has been exceeded. Under all other conditions, i.e. the determining returns a negative result, e.g., when the cache is determined not to have stored therein query results corresponding to the search query; or when predefined conditions are not satisfied; or the reuse count is less than or equal to the predetermined threshold count..., no result is produced, only a determination which is neither applied in a practical application nor made available for use occurs. It is suggested that the issues would be easy to fix by simply including the limitations of claims 4, 9, 11.

The same issue appears present in claims 2, 12 and 13; and therefore, is likewise rejected.

Claims 3, 5-8, 10, 14-15, 17-20, 22, 24-28 incorporate the deficiencies of claims 1, 2, 12, 13; and do not add tangibility to the claimed subject matter; they are likewise rejected.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3, 5-8, 10, 12-15, 17-20, 22, 24-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter applicant regards as the invention.

Claims 1-2, 12-13 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps.

See MPEP § 2172.01. The omitted steps are: the condition where

- the determining returns a negative result (e.g., when the cache is determined not to have stored therein query results corresponding to the search query).
- when predefined conditions are not satisfied.
- the reuse count is less than or equal to the predetermined threshold count.

Claims 3, 5-8, 10, 14-15, 17-20, 22, 24, are dependent upon claims 2, 13, respectively, suffer from deficiencies similar to their respective base claim, and therefore are likewise rejected.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cherkasova et al. (US Pub. No. 20020184448), in view of Takatori et al. (US Pub. No. 20020062323).

As to claims 1, 12, Cherkasova teaches a method for searching a document database, comprising:

receiving a search query (*i.e. a file is requested from the web cache, [0050]*);

returning a search result corresponding to the search query (*[0050]*), including:

determining whether query result corresponding to the search query is stored in a cache (*i.e. it is determined whether the requested file is in the web cache, [0051]*);

when determining returns a positive result, accessing a reuse count for the search query (*i.e. Fr(f) is increased by one, wherein Fr(f) represents the frequency of access of the requested file, [0062]*);

when predefined conditions are satisfied, including the reuse count being larger than a predetermined threshold count (*It is noted that Cherkasova discloses "a predetermined*

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threshold count" corresponds to $Fr(f) = 0$, in this case the limitation "including the reuse count being larger than predetermined threshold count would be $Fr(f) = 1, 2, 3, \dots$, which could be read as the requested file is in the web cache in [0051]);

returning as the search result at least a subset of the search result ([0002-0003; 0025-0026; 0029-0032]).

Cherkasova does not specifically teach:

generating an improved search result in accordance with a first set of predetermined searching criteria;

returning as the search result at least a subset of the improved search result,

Takatori, however, teaches:

generating an improved search result in accordance with a first set of predetermined searching criteria (i.e. arranging the sites and/or the pages found in the search in accordance with the obtained access counter values so that the site or the page having the larger access counter value is ranked higher, and outputting the information on the arrangement of the sites and/or pages as the result of the search, [0052]); and

returning as the search result at least a subset of the improved search result (i.e. the result of a search can be obtained in which the sites and/or the pages are arranged in the order of the degree of reliability or completeness of information, that is based on the fact that sites or pages with high reliability or completeness of information are accessed more, [0053]).

It would have been obvious to one of ordinary skill of the art having the teaching of Cherkasova and Takatori at the time the invention was made to modify the system of Cherkasova to include the limitations as taught by Takatori. One of ordinary skill in the art would be

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motivated to make this combination in order to output the information on the arrangement of the sites and/or pages as the result of the search in view of Takatori ([0052]), as doing so would give the added benefit of reducing time and efforts for executing a similar search, and making operations for searching easy as taught by Takatori ([0030]).

As to claims 2, 13, Cherkasova teaches a method for searching a document database, comprising:

receiving a search query (*i.e. a file is requested from the web cache, [0050]*);

returning a search result corresponding to the search query is stored in a cache ([0050]);

determining whether a query result corresponding to the search query is stored in a cache (*i.e. it is determined whether the requested file is in the web cache, [0051]*);

when the determining returns a positive result, accessing a reuse count for the search query (*i.e. $Fr(f)$ is increased by one, wherein $Fr(f)$ represents the frequency of access of the requested file, [0062]*);

when the reuse count is larger than a predetermined threshold count (*It is noted that Cherkasova discloses "a predetermined threshold count" corresponds to $Fr(f) = 0$, in this case the limitation "including the reuse count being larger than predetermined threshold count would be $Fr(f) = 1, 2, 3, \dots$, which could read as the requested file is in the web cache in [0051]*), generating an search result in accordance with a first set of predetermined search criteria ([0002-0003; 0025-0026; 0029-0032]); and

returning as the search result at least a subset of the search result ([0002-0003; 0025-0026; 0029-0032]).

Cherkasova does not explicitly teach including determining a quality of the cached query result; and the quality indication meets predefined criteria, generating an improved search result in accordance with a first set of predetermined search criteria;

returning as the search result at least a subset of the improved search result.

Takatori teaches including determining a quality of the cached query result (*i.e. the degree of reliability or completeness of information, [0048]*); and

the quality indication meets predefined criteria, generating an improved search result in accordance with a first set of predetermined search criteria (*i.e. arranging the sites and/or the pages found in the search in accordance with the obtained access counter values so that the site or the page having the larger access counter value is ranked higher, and outputting the information on the arrangement of the sites and/or pages as the result of the search, [0052]*); and

returning as the search result at least a subset of the improved search result (*i.e. the result of a search can be obtained in which the sites and/or the pages are arranged in the order of the degree of reliability or completeness of information, that is based on the fact that sites or pages with high reliability or completeness of information are accessed more, [0053]*).

It would have been obvious to one of ordinary skill of the art having the teaching of Cherkasova and Takatori at the time the invention was made to modify the system of Cherkasova to include the above limitations as taught by Takatori. One of ordinary skill in the art would be motivated to make this combination in order to output the information on the arrangement of the sites and/or pages as the result of the search in view of Takatori ([0052]), as doing so would give

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the added benefit of reducing time and efforts for executing a similar search, and making operations for searching easy as taught by Takatori ([0030]).

As to claims 3, 15, Cherkasova teaches updating the cache with the improved search result ([0060-0076]); *and*

updating the reuse count of the search query ([0060-0076]).

As to claims 4, 16, Cherkasova teaches when the reuse count is larger than the predetermined threshold count [0051], retrieving the search result from the cache ([0002-0003; 0025-0026; 0029-0032]); *and*

returning the search result ([0002-0003; 0025-0026; 0029-0032]).

Takatori teaches the quality indication does not meet the predefined criteria, retrieving the improved search result from the cache ([0059-0065; 0072-0077]); *and*

returning the improved search result ([0059-0065; 0072-0077]).

As to claims 5, 17, Takatori teaches the first set of predetermined criteria comprises: searching both a standard database and an additional database wherein the query result stored in the cache is generated using the standard database when the quality indication has a first value ([0059-0065; 0072-0077]).

As to claims 6, 18, Takatori teaches the first set of predetermined search criteria comprises:

searching a database with a larger search depth than a standard search depth, wherein the query result stored in the cache is generated using the standard search depth when the quality indication has a first value ([0059-0065; 0072-0077]).

As to claims 7, 19, Takatori teaches the first set of predetermined search criteria comprises:

searching a database using modified search criteria ([0059-0065; 0072-0077]).

As to claims 8, 20, Takatori teaches generating an improved search result comprises:
submitting the search query to one or more document identification and document servers in accordance with the first set of predetermined search criteria ([0059-0065; 0072-0077]);
receiving search results from the one or more document identification and document servers ([0059-0065; 0072-0077]); and
creating a search result list from the received search results ([0059-0065; 0072-0077]).

As to claims 9, 21, Cherkasova teaches when the cache is determined not to have stored therein the query result corresponding to the search query:

generating a standard search result in accordance with a second set of predetermined search criteria ([0054-0058; 0060-0076]); and

storing the standard search result in the cache ([0054-0058; 0060-0076]);

setting the reuse count of the search query to an initial value ([0054-0058; 0060-0076]);
and
returning the standard search result ([0054-0058; 0060-0076]).

As to claims 10, 22, Takatori teaches generating a standard search result comprises:
submitting the search query to one or more document identification and document servers
in accordance with the second set of predetermined searching criteria ([0059-0065; 0072-0077]);
receiving search results from the one or more document identification and document
servers ([0059-0065; 0072-0077]); *and*
creating a search result list from the received search results ([0059-0065; 0072-0077]).

As to claims 11, 23, Cherkasova teaches if the reuse count is less than or equal to the
predetermined threshold count, retrieving a standard search result from the cache ([0054-0058;
0060-0076]); *and*
returning the standard search result as the search result ([0054-0058; 0060-0076]).

As per claim 14, Cherkasova teaches the search results in the cache comprise:
identifications of documents ([0054-0058; 0060-0076]);
contents of portions of documents corresponding to at least a subset of the identifications
of documents ([0054-0058; 0060-0076]); *and*
parameters of documents corresponding to the identifications of documents ([0054-0058;
0060-0076]).

As per claim 24, Takatori teaches one or more interface modules for receiving a search query ([0014-0030; 0059-0065; 0072-0077]);

one or more storage modules for storing document identifications and the corresponding documents to be searched ([0014-0030; 0059-0065; 0072-0077]); wherein the search controller is configured to generate the improved search result by searching at least a subset of the stored document identifications ([0014-0030; 0059-0065; 0072-0077]).

As to claims 25, 26, 27, 28, Takatori teaches updating the query result in the cache with the improved search result ([0151-0152; 0177-0178]).

Response to Arguments

6. Applicant's arguments filed 09/13/2006 regarding independent claims 1, 2, 12, 13 have been amended to overcome rejections under 35 § USC 101 and § 112 have been fully considered but they are not persuasive. Merely including the claimed limitation "returning a search result corresponding to the search query" cannot provide any practical result wherein the independent claims 1, 2, 12, 13 lack all the essential steps required to provide this tangible result, as discussed hereinabove. Therefore, claims 1, 2, 12, 13 do not comply with 35 § USC 101 and § 112 second paragraph. The Applicant is advised to amend the claims as suggested.

7. Applicant's arguments regarding the prior arts have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (571) 272-4112. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene, can be reached on (571) 272-4107. The fax number to this Art Unit is (571)-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Miranda Le
October 27, 2006


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